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# **Back-up Generators**

CITY OF SAN DIEGO DEVELOPMENT SERVICES
1222 FIRST AVENUE, MS 301, SAN DIEGO, CA 92101
THE CITY OF SAN DIEGOCALL (619) 446-5300 FOR APPOINTMENTS AND (619) 446-5000 FOR INFORMATION.

BULLETIN 186

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#### I. INTRODUCTION

As a result of recent energy crisis, rolling black-outs, and fluctuating prices, many San Diegan's are choosing to install back-up generators to provide electricity for their home or business, should the need arise.

Whether purchasing a small portable electric generator or a large commercial power plant, each can be dangerous unless properly installed. Any generator connected to existing wiring requires a building permit and city inspections to verify that the connection is proper and the system is capable of meeting the load demand.

Also, the source of fuel, such as gasoline, diesel, or natural gas presents a potential hazard and requires special evaluation by city staff to insure proper storage and connections. In addition, installation of a generator may require a special foundation or it may negatively impact existing structural elements of a building. There may be noise or air-pollution issues, property line setback restrictions, and other permit or development requirements.

Each case is unique and full of potential problems. There is risk of damage to your equipment, fire or injury if the generator is not properly connected. The best way to insure success and avoid injury to your family or employees is to obtain a building permit. Let city staff review the plans and inspect the installation. They will be happy to help you or your contractor with code and safety issues.

#### II. TYPES OF GENERATORS

In general, there are two types of back-up generator systems:

The "Emergency System" is intended to supply power essential for safety to human life when normal power fails. These systems are required for critical facilities such as hospitals or fire stations, and high-rise or large public buildings. Such systems have stringent requirements and use a completely isolated wiring system to insure service in an emergency. This system is not intended for homes or most businesses.

The "Standby System" is intended to protect private business or property and may be integrated into existing wiring. These systems can be turned on manually or automatically when the primary power fails. The standby system is intended only to provide back-up electricity, and not intended to permanently replace existing utility power.

Electricity generating equipment that serves as a cogeneration system, feeding electricity back to the utility provider, is not considered a back-up system and therefore not addressed in this bulletin. Systems utilizing solar, wind, or water power are also not addressed in this bulletin.

#### III. PERMITS

A building permit must be obtained to install a backup generator. Permits may be obtained from the Development Services Department, Information & Application Services, 1222 First Avenue, (3<sup>rd</sup> Floor). Appointments are recommended and may be made by calling (619) 446-5300.

Applications for permits must include three copies of a plot plan, with a detailed description of the proposed work, the location of the generator, existing structures, utilities, property lines, etc. (Refer to Information Bulletin 122 for help in how to prepare a plot plan). All installations will require a single-line drawing showing the size of the generator, the overcurrent protection, and the connection to the current building wiring.

The complexity of the job will dictate which disciplines (mechanical, electrical, fire, structural, noise, hazardous materials, zoning, etc.) need to review and approve the plans. During the initial appointment a Plan Review Specialist will evaluate the plans and determine which clearances are required. Most plans can be checked over-the-counter while you wait. Particularly large or complex jobs may require submittal of plans and a comprehensive plan check, including county and state agency reviews.

All systems powered by liquid fuel and located within a structure will be required to obtain a clearance from Fire-Hazmat. Liquid fuel powered systems located outside a building will be required to obtain a clearance from the Fire Department Technical Services section at  $1010\ 2^{\rm nd}$  Avenue, Suite  $300\ (619)\ 533-4477$  when the fuel storage capacity exceeds  $10\ {\rm gallons}$  of gasoline or  $60\ {\rm gallons}$  of diesel.

Systems that store 55 gallons or more fuel, or other hazardous materials, are required to obtain clearance from the County of San Diego, Department of Environmental Health, Hazardous Materials Division, 1225 Imperial Ave., 3rd floor, San Diego, (619) 338-2222.

Systems powered by piston engines rated greater than or equal to 50 horsepower are required to obtain an Authority to Construct and a Permit to Operate from the San Diego Air Pollution Control District at 9150 Chesapeake Drive, (858) 650-4700. Systems

powered by gas turbines with an output rating greater than or equal to 300 kilowatts are also required to obtain an Authority to Construct and a Permit to Operate from the San Diego Air Pollution Control District.

For questions concerning renewable or alternative energy systems, contact the California Environmental Protection Agency, San Diego Permit Assistance Center at (619) 236-5938.

#### IV. FEES

The following fees are paid at the time the project is submitted for plan review and/or permit issuance. In addition to the fees listed below, fees may also be charged by the Air Pollution Control District (APCD) when their review is required.

#### A. General Plan Maintenance Fee

This fee is charged for projects with plans and documents to be reviewed for compliance with the general plan or land development code provisions.

General Plan Maintenance ......\$88

## B. Mapping Fee

This fee is charged when there are plans, drawings, maps or other geographical documents utilized for project review.

Mapping Fee ......\$ 10

# C. Plan Check/Inspection

### D. Fire Plan Check & Inspection

Fire plan check and inspection fees may be charged when their review is required. See Information Bulletin 501, Table 501D for a list of fees. For more information call the Fire Plan Review Section at (619) 446-5440.

#### E. Permit Issuance Fee

This fee is charged for all projects.

Permit Issuance Fee (with plans) ......\$ 44

# V. INSPECTIONS

All back-up generator installations require field inspections to verify conformance with the approved plans and compliance with safety codes. Inspections should be requested from Inspection Services, 9601 Ridgehaven Ct., Ste. 220 at (858) 492-5070.